

Penetrating Probes of Hot High- μ_B Matter: Theory Meets Experiment

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome from the ECT* director

Monday 21 July 2025 09:30 (10 minutes)

Presenter: VAN KOLCK, Ubirajara (ECT*, Trento)

Session Classification: Introduction and projects 1

Contribution ID: 2

Type: **not specified**

Introduction to the workshop and organization of the week

Monday 21 July 2025 09:40 (20 minutes)

Presenter: SCOMPARIN, Enrico (INFN Torino)

Session Classification: Introduction and projects 1

Contribution ID: 3

Type: **not specified**

The phase diagram at finite μ_B and T

Monday 21 July 2025 10:00 (45 minutes)

Presenter: PAWLOWSKI, Jan M. (University of Heidelberg)

Session Classification: Introduction and projects 1

Contribution ID: 4

Type: **not specified**

Hot and dense baryon-rich QCD matter

Monday 21 July 2025 11:15 (45 minutes)

Presenter: WAMBACH, Jochen (TU Darmstadt)

Session Classification: Introduction and projects 1bis

Contribution ID: 5

Type: **not specified**

Studying QCD matter at high-baryon density with the HADES experiment

Monday 21 July 2025 12:00 (45 minutes)

Presenter: HARABASZ, Szymon (Laboratoire de Physique des 2 infinis Irène Joliot-Curie –IJCLab)

Session Classification: Introduction and projects 1bis

Contribution ID: 6

Type: **not specified**

NA60+/DiCE: overview and plans

Monday 21 July 2025 14:00 (40 minutes)

Presenter: VOROBYEV, Ivan (CERN)

Session Classification: Introduction and projects 2

Contribution ID: 7

Type: **not specified**

Overview of STAR-BES results

Monday 21 July 2025 14:40 (40 minutes)

Presenter: RUAN, Lijuan

Session Classification: Introduction and projects 2

Contribution ID: 8

Type: **not specified**

The CBM experiment at FAIR: overview and physics performance

Monday 21 July 2025 15:20 (40 minutes)

Presenter: ANDRONIC, Anton (University of Munster)

Session Classification: Introduction and projects 2

Contribution ID: 9

Type: **not specified**

Plenary discussion: a roadmap for the week, ideas for a possible document

Monday 21 July 2025 16:30 (1 hour)

Presenter: RAPP, Ralf (Texas A&M University)

Session Classification: Discussion 1

Contribution ID: **10**

Type: **not specified**

Informal discussions (small groups)

Session Classification: Discussion 1

Contribution ID: **11**

Type: **not specified**

Plenary discussion on previous day topics

Tuesday 22 July 2025 09:30 (1 hour)

Presenters: USAI, Gianluca (Università di Cagliari and INFN); GALATYUK, Tetyana (Technische Universität Darmstadt)

Session Classification: Discussion 2

Contribution ID: **12**

Type: **not specified**

Theory overview on open charm

Tuesday 22 July 2025 10:50 (45 minutes)

Presenter: GRECO, Vincenzo

Session Classification: Open charm 1

Contribution ID: 13

Type: **not specified**

Overview on open charm, including NA60+/DiCE and CBM prospects

Tuesday 22 July 2025 11:35 (45 minutes)

Presenter: PRINO, Francesco (INFN, Sezione di Torino)

Session Classification: Open charm 1

Contribution ID: 14

Type: **not specified**

Spectral functions from lattice QCD, from light hadrons to heavy quarks

Tuesday 22 July 2025 13:35 (40 minutes)

Presenter: ALLTON, Chris (Swansea University)

Session Classification: Open charm 2

Contribution ID: 15

Type: **not specified**

Hadronization of heavy flavours in pp and AA

Tuesday 22 July 2025 14:15 (40 minutes)

Presenter: HE, Min (Nanjing University of Science & Technology)

Session Classification: Open charm 2

Contribution ID: 16

Type: **not specified**

Open/hidden charm in transport in nuclear collisions at SPS/FAIR energy

Tuesday 22 July 2025 14:55 (40 minutes)

Presenter: SONG, Taesoo (GSI)

Session Classification: Open charm 2

Contribution ID: 17

Type: **not specified**

Hypernuclei production at fixed-target energy

Tuesday 22 July 2025 16:05 (40 minutes)

Presenter: PUCCIO, Maximiliano (CERN)

Session Classification: New directions

Contribution ID: **18**

Type: **not specified**

Probing the phase-coexistence region with leptons

Tuesday 22 July 2025 16:45 (40 minutes)

Presenter: RANDRUP, Jorgen (LBNL)

Session Classification: New directions

Contribution ID: 19

Type: **not specified**

Informal discussion (small groups)

Tuesday 22 July 2025 17:25 (25 minutes)

Session Classification: Discussion 3

Contribution ID: 20

Type: **not specified**

Plenary discussion on the topics of previous day

Wednesday 23 July 2025 09:30 (1 hour)

Presenters: PRINO, Francesco (INFN, Sezione di Torino); GRECO, Vincenzo

Session Classification: Discussion 4

Contribution ID: 21

Type: **not specified**

Theory overview on quarkonium

Wednesday 23 July 2025 10:50 (45 minutes)

Presenter: VAIRO, Antonio (TUM)

Session Classification: Quarkonium 1

Contribution ID: 22

Type: **not specified**

Overview on quarkonia, including NA60+ and CBM prospects

Wednesday 23 July 2025 11:35 (45 minutes)

Presenter: SCOMPARIN, Enrico (INFN Torino)

Session Classification: Quarkonium 1

Contribution ID: 23

Type: **not specified**

Intrinsic Heavy Hadrons in Fixed-Target Collisions

Wednesday 23 July 2025 13:35 (40 minutes)

Presenter: VOGT, Ramona (LLNL and UC Davis)

Session Classification: Quarkonium 2

Contribution ID: 24

Type: **not specified**

Heavy Flavour production at fixed-target LHC

Wednesday 23 July 2025 14:15 (40 minutes)

Presenter: DA SILVA, Cesar (Los Alamos National Lab)

Session Classification: Quarkonium 2

Contribution ID: 25

Type: **not specified**

Quarkonia Spectral Function from Lattice QCD

Wednesday 23 July 2025 14:55 (40 minutes)

Presenter: BALA, Dibyendu (Bielefeld University)

Session Classification: Quarkonium 2

Contribution ID: 26

Type: **not specified**

Comover models at low energy

Presenter: G. FERREIRO, Elena (Universidade de Santiago de Compostela, IGFAE)

Session Classification: Quarkonium 3

Contribution ID: 27

Type: **not specified**

Quark model approach to quarkonia

Wednesday 23 July 2025 16:25 (40 minutes)

Presenter: BLASCHKE, David (Institute for Theoretical Physics University of Wroclaw, Poland)

Session Classification: Quarkonium 3

Contribution ID: 28

Type: **not specified**

Plenary discussion on the topics of previous day

Thursday 24 July 2025 09:30 (1 hour)

Presenters: VAIRO, Antonio (TUM); SCOMPARIN, Enrico (INFN Torino)

Session Classification: Discussion 6

Contribution ID: 29

Type: **not specified**

Theory overview on dileptons

Thursday 24 July 2025 10:50 (45 minutes)

Presenter: GALE, Charles (McGill University)

Session Classification: E.M. probes 1

Contribution ID: **30**

Type: **not specified**

Experimental overview on dileptons

Thursday 24 July 2025 11:35 (45 minutes)

Presenter: STROTH, Joachim (Goethe University Frankfurt / GSI)

Session Classification: E.M. probes 1

Contribution ID: **31**

Type: **not specified**

Experimental overview on real photons

Thursday 24 July 2025 13:35 (40 minutes)

Presenter: ESHA, Roli (Stony Brook University)

Session Classification: E.M. probes 2

Contribution ID: 32

Type: **not specified**

Considerations on PHENIX vs STAR puzzle

Thursday 24 July 2025 14:15 (30 minutes)

Presenter: DREES, Axel (Stony Brook University)

Session Classification: E.M. probes 2

Contribution ID: 33

Type: **not specified**

Electric Conductivity of QCD matter (QGP/hadronic)

Thursday 24 July 2025 14:45 (40 minutes)

Presenter: FLOERCHINGER, Stefan (Theoretisch-Physikalisches Institut, Friedrich-Schiller-Universität Jena)

Session Classification: E.M. probes 2

Contribution ID: 34

Type: **not specified**

Low momentum/low mass dileptons in HADES and results on photon polarisation from coarse-graining approach

Thursday 24 July 2025 15:55 (40 minutes)

Presenter: SECK, Florian (TU Darmstadt)

Session Classification: E.M. probes 3

Contribution ID: 35

Type: **not specified**

Probing high-mu_B matter with dileptons using the MPD detector at NICA

Thursday 24 July 2025 16:35 (40 minutes)

Presenter: TSERRUYA, Itzhak (Weizmann Institute)

Session Classification: E.M. probes 3

Contribution ID: 36

Type: **not specified**

Phi meson properties in dense matter from pA collisions in a transport approach

Thursday 24 July 2025 17:15 (40 minutes)

Presenter: GUBLER, Philipp (JAEA)

Session Classification: E.M. probes 3

Contribution ID: 37

Type: **not specified**

Informal discussions (small groups)

Wednesday 23 July 2025 17:05 (50 minutes)

Session Classification: Discussion 5

Contribution ID: **38**

Type: **not specified**

Plenary discussion on the topics of previous day

Friday 25 July 2025 09:30 (1 hour)

Presenters: GALE, Charles (McGill University); STROTH, Joachim (Goethe University Frankfurt / GSI)

Session Classification: Discussion 7

Contribution ID: 39

Type: **not specified**

Summary of the workshop, main ideas and future developments

Friday 25 July 2025 10:50 (1h 10m)

Session Classification: Wrap-up and conclusions

Contribution ID: 40

Type: **not specified**

Transport coefficients and energy loss for the hot and baryon dense QGP using Einstein-Maxwell-dilaton Holographic Model

Presenter: KHAN, Musa Rahim (University of Houston)

Session Classification: Introduction and projects 3

Contribution ID: 41

Type: **not specified**

Informal discussions (small groups)

Thursday 24 July 2025 17:55 (20 minutes)

Session Classification: Discussion 8

Contribution ID: 42

Type: **not specified**

Nuclear Cold QCD: Review and Future Strategy

Wednesday 23 July 2025 16:05 (20 minutes)

Presenter: VOGT, Ramona (LLNL and UC Davis)

Session Classification: Quarkonium 3